Microzine®

The Learning Library on Disk

35

What's Missing? • *Critical Thinking/Math*

World Agent • *Reading/Geography*

Let's Graph It! • *Math/Computer Literacy*

Grid Block • *Problem Solving/Visual Discrimination*

Apple® II Plus, *I*Ie, IIc, IIc Plus, or IIGS; 64K; disk drive; printer optional

SCHOLASTIC

Ages 9 and up

Microzine **is the learning library on disk.**

Every issue contains four challenging programs to help students master basic subject matter skills and learn key curriculum concepts while they enjoy themselves on the computer. It's like taking part in a variety show that spins yarns, makes music, tickles your imagination, and challenges you to think, read, write, and reason. Included in each issue are the popular Twistaplot™ interactive reading adventures as well as three other programs that enhance critical thinking, problem solving, math, science, and language arts skills, and more.

Microzine and *Microzine Jr.* Awards

1984 Best Software of the Year • *Classroom Computer Learning & Learning Magazine*
1985 Critics' Choice Award • *Family Computing*
1987 Educational Software Award • *Learning Exchange*
1987 "Top Six" Winner, Best Software of the Year • *Classroom Computer Learning*
1988 Enhancement Award • *Classroom Computer Learning*
1988 Nominated: Best Elementary School Program • *Software Publishers Association*

Free Lifetime Warranty

Every registered Scholastic software program is backed by a FREE LIFETIME WARRANTY. If the disk becomes defective at any time, just send it back to us for a free replacement. No questions asked. No shipping and handling charge. To be eligible, you must have filled out a warranty registration card for the software.

TEACHER EDITION
ISBN:
0-590-81833-3

Scholastic Inc.
2931 East McCarty Street
P.O. Box 7502
Jefferson City, MO 65102

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Microzine® No. 35

Disk 1

Side 1: *Microzine* Guide Grid Block

Side 2: What's Missing? Apple® 64K COPYABLE

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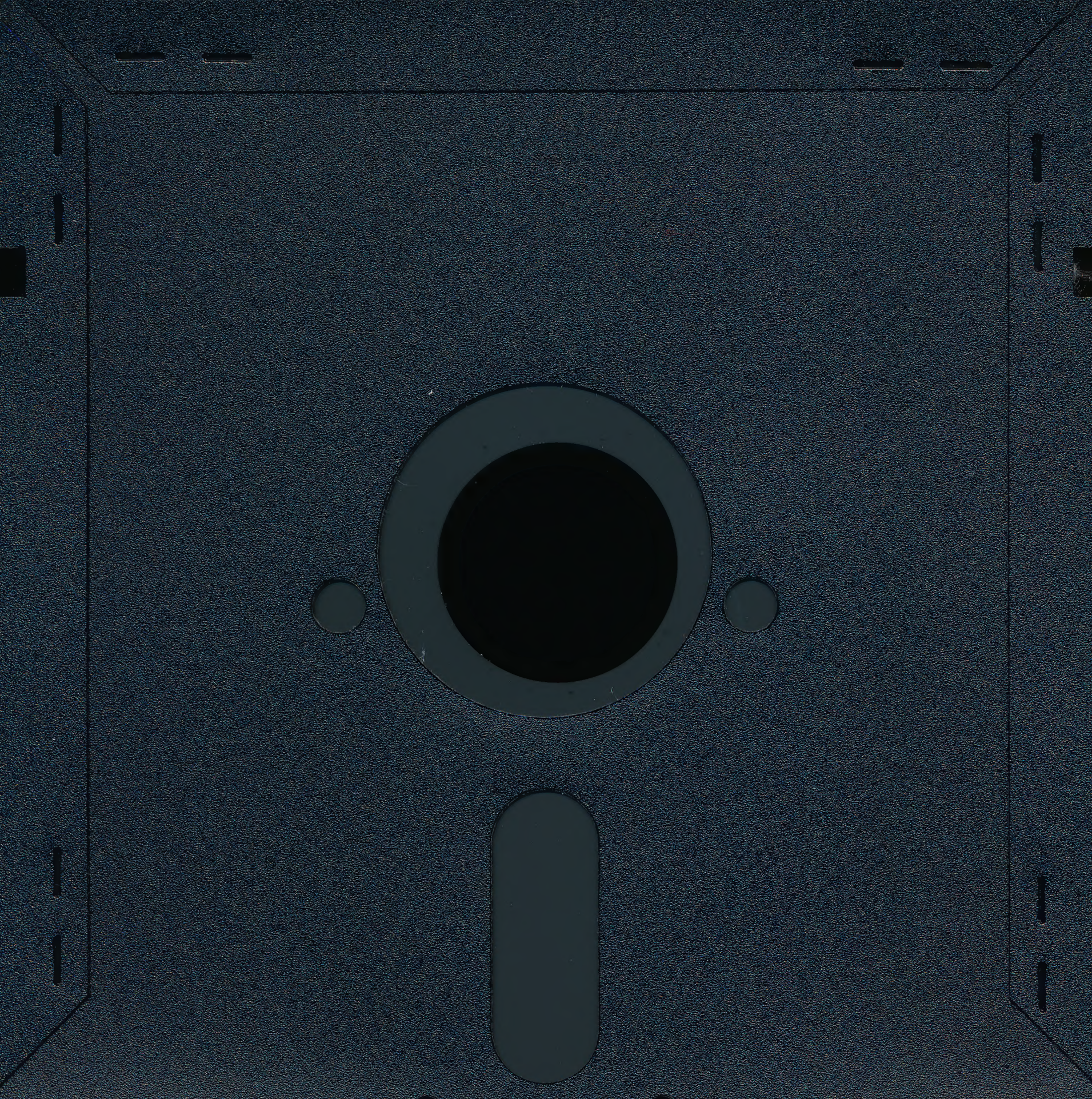

Microzine®

No. 35

Disk 2

Side 1: World Agent

Side 2: Let's Graph It! Apple® 64K

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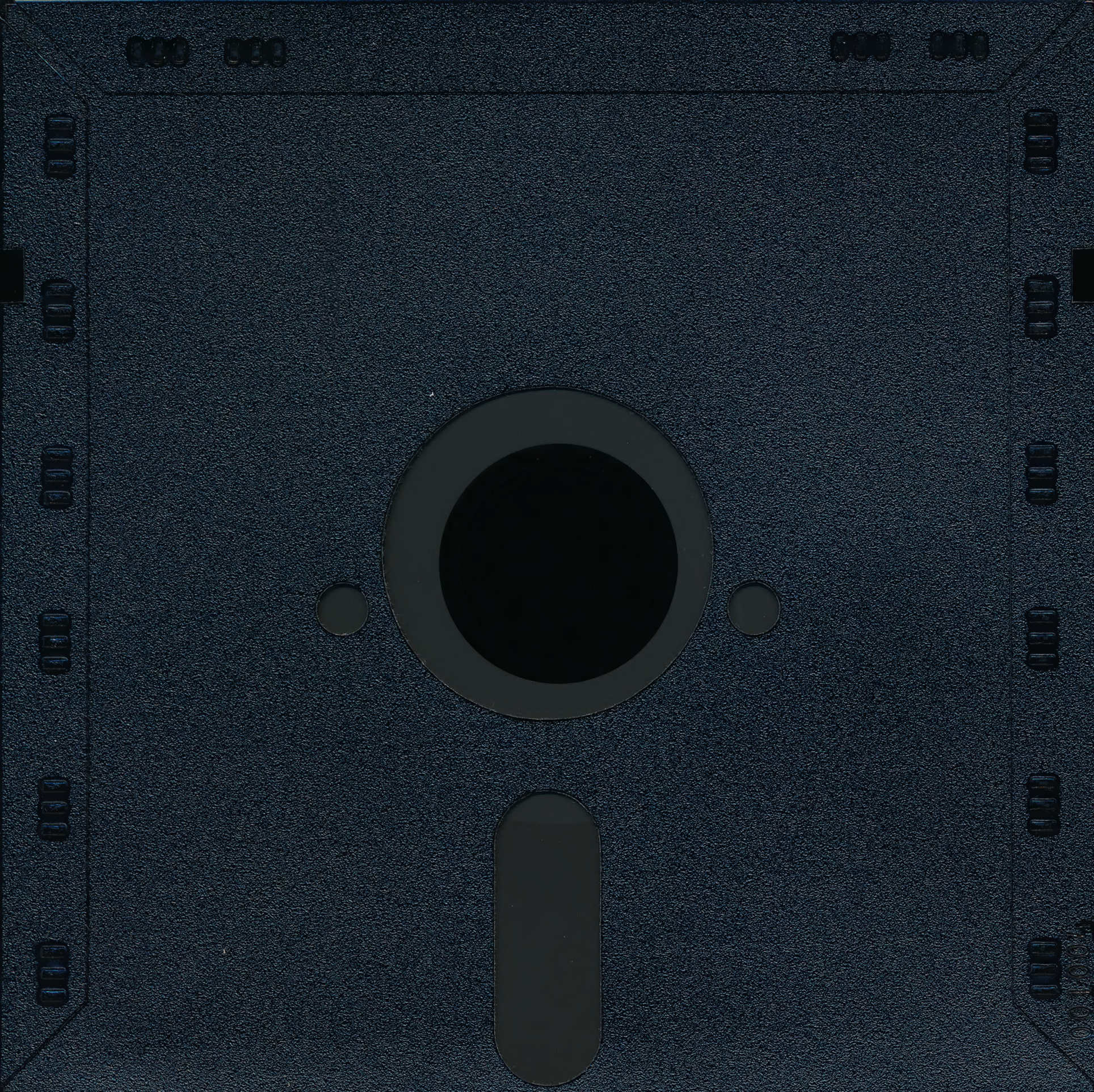

Microzine®

Student Handbook and Teacher's Guide

35

What's Missing? • *Critical Thinking/Math*
World Agent • *Reading/Geography*
Let's Graph It! • *Math/Computer Literacy*
Grid Block • *Problem Solving/Visual Discrimination*

SCHOLASTIC

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ISBN: 0-590-82694-8 12 11 10 9 8 7 6 5 4 3 2 1 3 3 2 1 0/9

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Getting Started

Apple Computers

Equipment You Need

1. Monitor or TV
2. 64K Apple II Plus, *II*e, IIc, IIc Plus, or IIGS
3. Disk drive

Apple ® is a registered trademark of Apple Computer, Inc.

Loading *Microzine*

1. Open the disk drive door.
2. Hold the disk with the label end facing you.
3. If you have a 3.5-inch disk, insert the disk slowly with the label facing up. If you have a 5.25-inch disk and the program you want is on Side 1 of the disk, insert the disk slowly with the label facing up. If the program you want is on Side 2 of the disk, insert the disk slowly with the label facing down.
4. Close the drive door.
5. Turn on the computer and monitor (or TV).

NOTE: Never remove or insert a disk while the disk drive's red light is on.

MS-DOS Computers

Equipment You Need

1. Monitor or TV
2. 256K IBM with a Color Graphics Adapter (CGA), Tandy 1000, or any 100% compatible
3. Disk drive
4. Disk Operating System (DOS), version 2.0 or higher

Loading DOS

You must load DOS into your computer before you can load *Microzine*.

1. If you have a hard drive, turn the computer on.

   If you have DOS on a 5.25-inch disk or on a 3.5-inch disk, open the disk drive door and insert the disk. Turn the computer on.

2. You will see a DOS prompt. The prompt will be a letter followed by a greater-than sign (for example, A>). The letter of the prompt corresponds with the disk drive.
3. If you want to load *Microzine* in the disk drive that corresponds with the letter of the prompt (for example, if the DOS prompt is A> and you want to load *Microzine* into Drive A), put the *Microzine* disk in that drive.

If you want to load *Microzine* in a drive that is different from the drive indicated by the DOS prompt (for example, the prompt is A> and you want to load *Microzine* in Drive B), type the letter of the drive and a colon, then press Enter (for example, type **B:** and then Enter). You will see a new DOS prompt (for example, B>). Put the *Microzine* disk in the drive.

Loading *Microzine*

Choose a program you want to load. Find the disk with that program's name on the label. Type these commands to load the *Microzine* programs:

MICROZINE GUIDE: Type **MZ** and then press Enter.

> ***NOTE: You may also load the other* Microzine *programs from within the* Microzine *Guide. Choose Programs and then choose the* Microzine *program you want to load. Choose the option Start the Program and then press Enter.***

WHAT'S MISSING?: Type **WM** and then press Enter.

WORLD AGENT: Type **WA** and then press Enter.

LET'S GRAPH IT!: Type **LGI** and then press Enter.

GRID BLOCK: Type **GB** and then press Enter.

> ***NOTE: In each issue of* Microzine*, you may load any program by typing the initials of the program name at the DOS prompt.***

If the *Microzine* program does not appear on the screen, read the instructions once more, starting with "Loading DOS," and try again.

Using *Microzine*

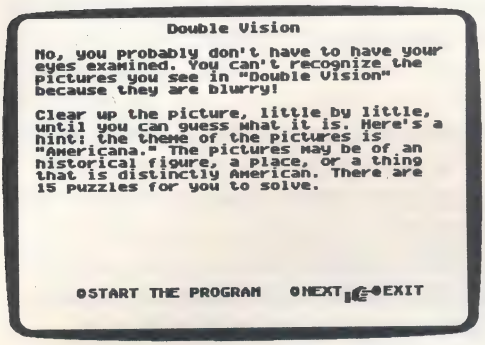
Using the *Microzine* Hand

You will use the *Microzine* Hand icon in most of the programs and features in this issue of *Microzine*. Use the arrow keys, or IJKM, to move the Hand.

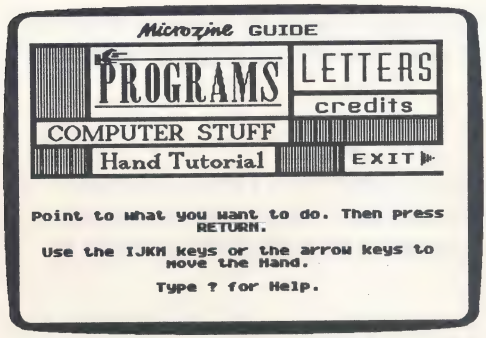
Use the Hand to point to what you want to do, and then press Return or Enter.

There are two ways to point to what you want to do:

1. Make the Hand touch some part of the word that describes what you want to do. If you want to exit a program or screen, make the Hand touch the word Exit, or the circle in front of Exit, and then press Return or Enter.


Double Vision
No, you probably don't have to have your eyes examined. You can't recognize the pictures you see in "Double Vision" because they are blurry!
Clear up the picture, little by little, until you can guess what it is. Here's a hint: the theme of the pictures is "Americana." The pictures may be of an historical figure, a place, or a thing that is distinctly American. There are 15 puzzles for you to solve.
START THE PROGRAM
NEXT
EXIT

2. Make the Hand point to a box that contains a word that describes what you want to do, such as the boxes on the Table of Contents. Make the Hand touch any part of the box, and then press Return or Enter.



The *Microzine* Guide

There are six features on the *Microzine* Guide. They are Programs, Computer Stuff, Credits, Letters, Hand Tutorial, and Exit. The features are listed in a collection of boxes on the screen. Each box is labeled.

Use the Hand icon to point to the box that describes what you want to do. For example, to read the Credits, use the Hand to point to the box labeled Credits, and then press Return or Enter.

PROGRAMS

Use the Hand to point to Programs on the *Microzine* Guide, and then press Return or Enter, to read a description of the programs in this issue of *Microzine* or to load a program from this issue of *Microzine*.

COMPUTER STUFF

Use the Hand to point to Computer Stuff on the *Microzine* Guide, and then press Return or Enter to see a list of the functions in Computer Stuff. See "Computer Stuff," page 36.

CREDITS

Use the Hand to point to Credits on the *Microzine* Guide, and then press Return or Enter to see the credits for this issue of *Microzine*.

LETTERS

Use the Hand to point to Letters on the *Microzine* Guide, and then press Return or Enter to read letters from the *Microzine* Editor and *Microzine* readers.

HAND TUTORIAL

Use the Hand to point to Hand Tutorial on the Table of Contents, or press ?, and then press Return or Enter to learn how to use the *Microzine* Hand. Also, see "Using the *Microzine* Hand," page 6.

EXIT

Use the Hand to point to Exit on the *Microzine* Guide, and then press Return or Enter to quit using *Microzine*.

CONTROL (CTRL) KEYS

Sometimes you will have to press the Control (Ctrl) key and another key at the same time. This will be written as Ctrl-(the key). For example, if you see Ctrl-N, it means press the Control key and the **N** key at the same time.

Troubleshooter

We have included this section in the *Microzine* Handbook to help you if you run into problems using *Microzine*. Each *Microzine* program is documented in the Handbook, and specific hints for using the program are included there, however, we occasionally receive calls about more general problems.

LOADING *MICROZINE*

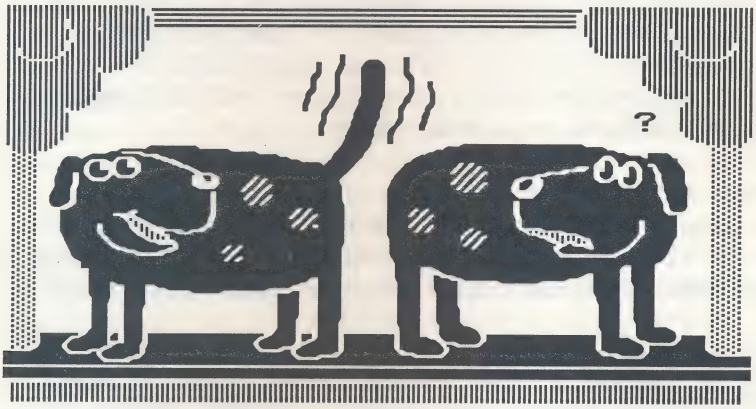
If *Microzine* does not appear on the screen, turn the computer off. Then turn it back on and try again. Make sure the disk drive door is closed, and check to see that the disk drive is hooked up correctly.

APPLE IIc PLUS

Microzine programs run most effectively when the Apple IIc Plus is running in slow mode, rather than fast mode. Put the *Microzine* disk in the drive. Hold down the Open Apple key, the Control key, the Reset key, and the Esc key simultaneously, then release all four keys. The computer will reboot the *Microzine* program in slow mode.

WHAT'S MISSING?

***Microzine*'s Critical Thinking Feature**

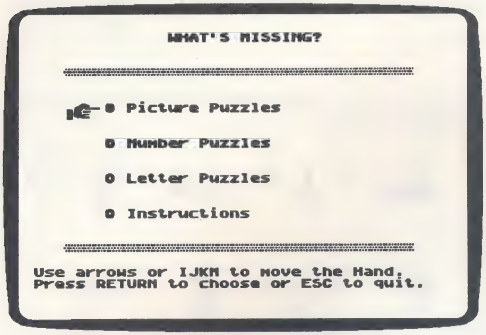


What You Will Find

In "What's Missing?" you will complete patterns and sequences made up of pictures, numbers, and letters.

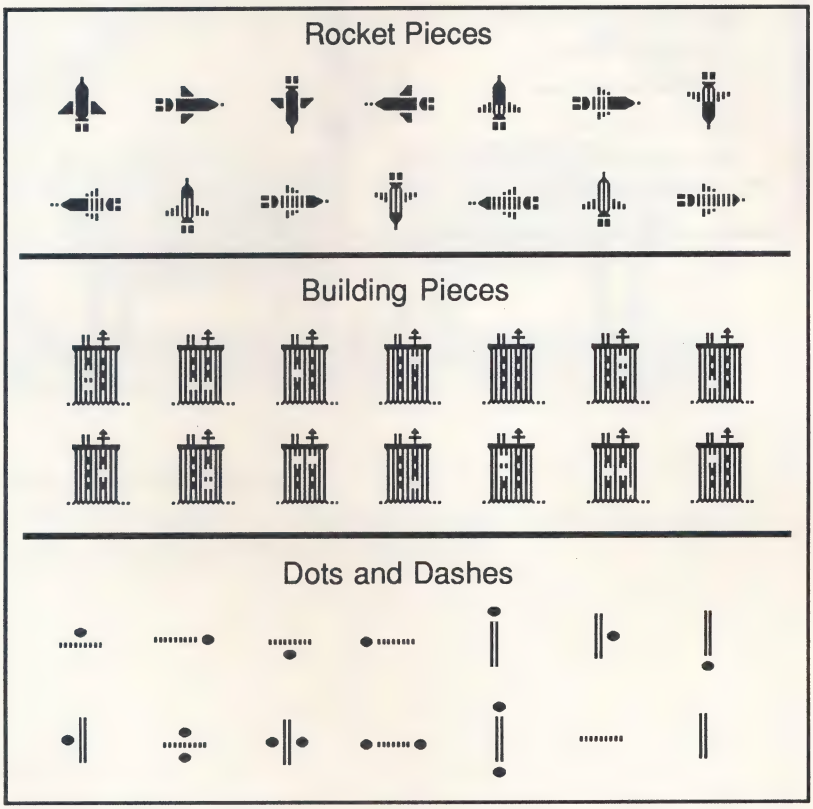
"What's Missing?" MAIN MENU

"What's Missing?" has four functions or things you may do. They are PICTURE PUZZLES, NUMBER PUZZLES, LETTER PUZZLES, and INSTRUCTIONS.



PICTURE PUZZLES

Choose this function to solve picture puzzles. Use the arrow keys or IJKM to choose PICTURE PUZZLES and then press Return or Enter. You may choose to solve puzzles made from Rockets, Buildings, or Dots and Dashes.



NUMBER PUZZLES

Choose this function to solve number puzzles. Use the arrow keys or IJKM to choose NUMBER PUZZLES and then press Return or Enter. You may then choose to solve Easy or Challenging NUMBER PUZZLES.

Number Pieces

0 1 2 3 4 5 6 7 8 9

LETTER PUZZLES

Choose this function to solve letter puzzles. Use the arrow keys or IJKM to choose LETTER PUZZLES and then press Return or Enter. You may then choose to solve Easy or Challenging LETTER PUZZLES.

Letter Pieces

A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z

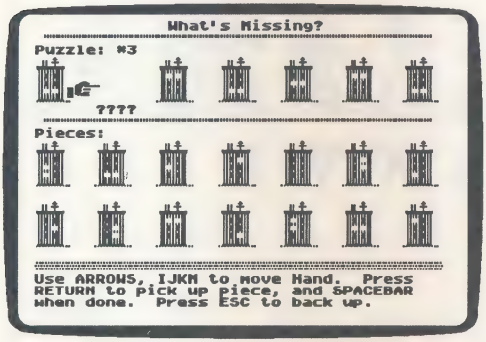
Solving "What's Missing?" Puzzles

Once you have chosen to solve either Easy or Challenging puzzles, the program will ask you to type the number of the puzzle you want to solve.

Type a number from 1–25, and press Return or Enter.

NOTE: There are 25 puzzles in each level. Each time you play a puzzle, a different piece in the puzzle will be missing. For example, the first time you play a Number Puzzle you might see 1, 3, 5, 7,__, 11. The next time you play this same puzzle you might see 1, __, 5, 7, 9, 11.

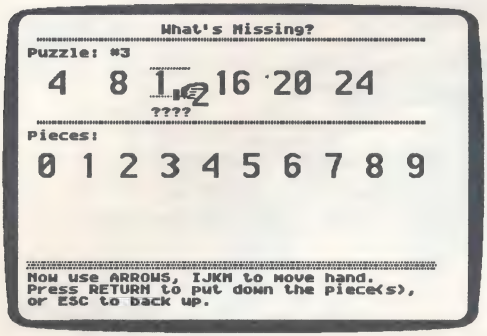
You will see puzzles made up of five, six, or seven pieces. Each puzzle will have one or two blanks, or places where pieces are missing in the puzzle. Below the puzzle is the "Pieces" box. For each type of puzzle (picture, number, or letter) all of the pieces that may be missing from the puzzle are in the "Pieces" box.


What's Missing?
Puzzle: #3
????
Pieces:
Use ARROWS, IJKM to move Hand. Press RETURN to pick up piece, and SPACEBAR when done. Press ESC to back up.

To solve a puzzle, figure out what's missing. Then choose the piece(s) from the "Pieces" box that you think will complete the puzzle.

Use the arrow keys or IJKM to move the Hand. Point to the piece you want to place in the puzzle and press Return or Enter. The Hand will pick up the piece. Now use the arrow keys or IJKM to carry the piece to the puzzle blank in which you want to place it and press Return or Enter.

In NUMBER and LETTER PUZZLES, you may place two digits (numbers) or two letters in one blank. For example, to place the number "twelve" in a blank you will need to place a "one" piece and a "two" piece in the blank.


What's Missing?
Puzzle: #3
4 8 1 2 16 20 24
????
Pieces:
0 1 2 3 4 5 6 7 8 9
Now use ARROWS, IJKM to move hand.
Press RETURN to put down the piece(s),
or ESC to back up.

NOTE: Be sure to place each digit or letter on the LEFT or RIGHT side of the blank. You may not place a digit or a letter in the center of a blank.

When you have solved the puzzle, press the Space Bar. If you are correct, the program will congratulate you. Press Return or Enter to play the next puzzle.

If you placed one or more incorrect pieces in the puzzle, the program will tell you that you did not solve the puzzle, and will ask you to try again. Use the Hand to point to the incorrect piece and press Return or Enter. Use the arrow keys or IJKM to carry it back to the "Pieces" box. Press Return or Enter to drop it anywhere in the "Pieces" box. Then try again!

You may press Esc at any time to quit. To solve a different puzzle, type in the number of the puzzle you want to solve and press Return or Enter. Press Esc again to return to the "What's Missing?" MAIN MENU.

INSTRUCTIONS

Choose this function to read about solving PICTURE, LETTER, and NUMBER PUZZLES.

Helpful Hints

What's missing? Here are some hints to help you find out.

- Use your knowledge of addition, subtraction, and multiplication to help you solve the NUMBER PUZZLES.

  For example, the pieces in a puzzle may be multiples of a certain number. If you see the NUMBER PUZZLE 16, 24, 32, 40, 48, and 56, you know that these are all multiples of eight. Your answer should be a multiple of eight.

  If you see the numbers 5, 6, 11, 17, 28, 45, and 73, after studying the puzzle carefully you see that the first two numbers added together equal the third, and so on (5 + 6 = 11, 6 + 11 = 17, 11 + 17 = 28). Your answer should match this pattern.

- To help you solve the LETTER PUZZLES, write the entire alphabet in a single line. It may be easier to see relationships between letters when you see them written down.
- If you have trouble solving a puzzle, write down the number of the puzzle and return to it another time.

WORLD AGENT

A Twistaplot™ Adventure

A great national treasure has been stolen from Washington D.C. Naturally, the President calls you to find it! The only information known so far is that the treasure is somewhere in North or South America. It's up to you to fly your jet all over the Americas in search of the treasure.

What You Will Find

You'll meet kids, collect souvenirs, and give gifts as you gather information about the missing treasure's whereabouts. The President is counting on you to find the treasure. Rush to your jet and prepare for take off!

Flying Your Jet

Use the following keys to fly your jet from country to country.

Apple II Plus	Apple *IIe*/IIc/IIc Plus/IIGS	MS-DOS
I to move up	I or ↑ to move up	↑ to move up
J to move left	J or ← to move left	← to move left
K to move right	K or → to move right	→ to move right
M to move down	M or ↓ to move down	↓ to move down

Landing Your Jet

To land in any country, fly your jet icon to the circle located next to the country you want to visit. Then press Return or Enter.

Four Versions

There are four versions of "World Agent" you may play. In each version, a different treasure is missing from Washington D.C.

Password

If you want to stop reading the story and continue "World Agent" another time, press Esc.

The program will ask you to type a password. Remember it! Then, when you read "World Agent" again, you may enter your password and continue your adventure from where you left off.

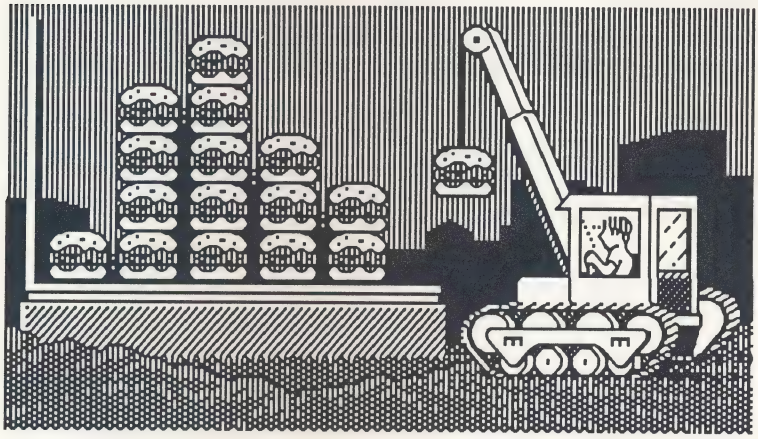
Helpful Hints

Here are a few hints to help you find the treasure and return it safely to the President:

- Don't ask someone if the treasure is in their country unless you are very sure it's there. If you do ask, and the treasure isn't there, you'll have to leave behind all the souvenirs that you collected.
- Remember all the interesting facts that people tell you. You never know when someone will ask you a question!
- You'll meet a friend in every country you visit. Write down all the clues they tell you, souvenirs they give you, and gifts they tell you they want. You may find the "World Agent" Activity Page (on page 46) helpful in completing your mission.

LET'S GRAPH IT!

A Graph and Chart Feature



How many kids in your class like baseball? How many prefer soccer, football, volleyball, or basketball?

Gather the information, make it into a graph or chart, and see the answer to your question at a glance.

What You Will Find

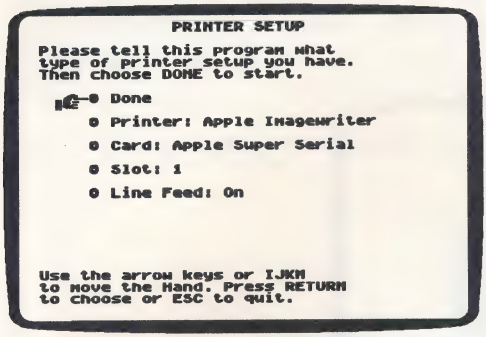
With "Let's Graph It!" you may design and print bar graphs, line graphs, pictographs, and charts. Choose from 60 pictograms to make pictographs, and ten decorative bars to make bar graphs.

Once you make a graph or chart, you may convert it into another type of graph and see your information in a new way.

Printer Setup

"Let's Graph It!" will ask if you have a printer. Choose Yes if you have a printer. Choose No if you don't have a printer.

If you have a printer, you need to tell "Let's Graph It!" about your printer set up. The program will display the options for printing. They are Done, Printer, Card, Slot, and Line Feed.


PRINTER SETUP
Please tell this program what type of printer setup you have. Then choose DONE to start.
Done
Printer: Apple Imagewriter
Card: Apple Super Serial
Slot: 1
Line Feed: On
Use the arrow keys or IJKM to move the Hand. Press RETURN to choose or ESC to quit.

- Done: Choose this option when you are done telling "Let's Graph It!" about your printer set up.
- Printer: Choose this option to select a printer. Use the arrow keys or IJKM to select a printer.
- Card: Choose this option to select a printer interface card. Use the arrow keys or IJKM to select a printer card.
- Slot: Choose this option to tell "Let's Graph It!" which slot your printer interface card is in.
- Line Feed: Choose this option to turn the Line Feed option on or off. "Let's Graph It!" assumes that you want the Line Feed option turned on. Use the arrow keys or IJKM to select On or Off.

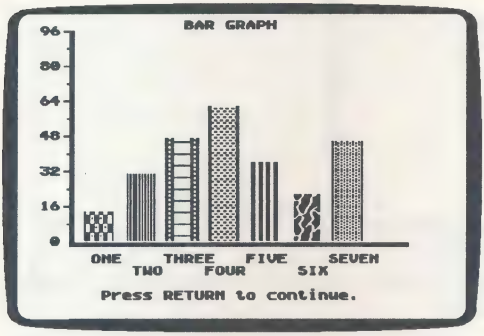
"Let's Graph It!" MAIN MENU

The "Let's Graph It!" MAIN MENU has two functions or things you may do. They are MAKE A GRAPH and INSTRUCTIONS.

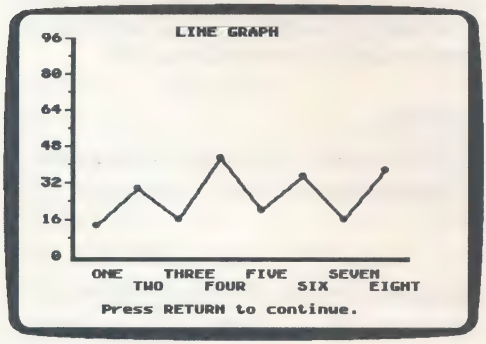
MAKE A GRAPH

Choose this function to make a graph or chart. You may choose to Make a Bar Graph, Make a Line Graph, Make a Pictograph, or Make a Chart.

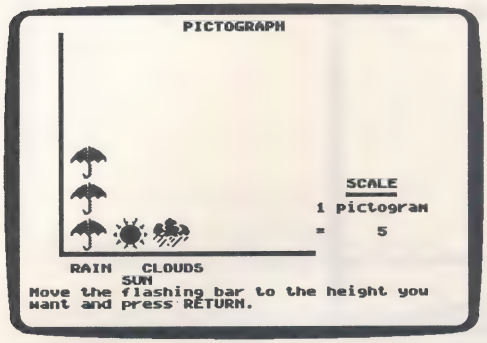
In a bar graph, each piece of data is displayed in a bar. The values (or numbers) the bar may be equal to are listed on the left side of the graph. You can see the value of each bar by its height. For example, in the bar graph below, the bar in column "ONE" is almost as high as the number 16. Therefore, the value of the column "ONE" is 15.



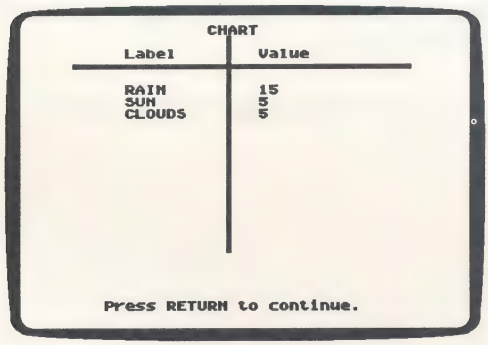
In a line graph, each piece of data is displayed as a dot. The dots for each piece of data are connected by a line. The values (or numbers) the dots may be equal to are listed on the left side of the graph. You can see the value of each dot by its height. For example, in the line graph below, the dot over column "ONE" is almost as high as the number 16. Therefore, the value of the column "ONE" is 15.



In a pictograph, each piece of data is displayed in pictograms (graphics). Each pictogram has a value. For example, one pictogram may equal five. To figure out the value of an entire column of pictograms, count the number of pictograms in the column. Then multiply that number by the value of each pictogram. For example, if one pictogram equals five, and there are three pictograms in the column, then the value of the column is 15.



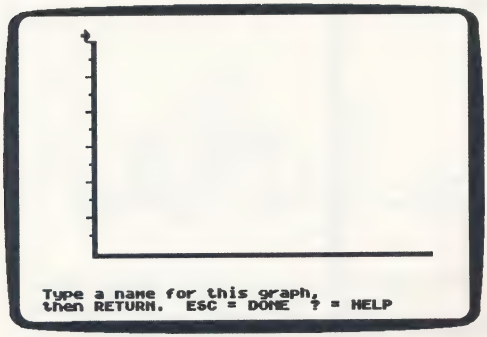
In a chart, each piece of data is displayed in words and numbers. The name of each piece of data is under the column called "Label." The value of the label is on the same line as the label, under the column called "Value." You can see the value of a piece of data by reading across one line on the chart. For example, next to the label called "Rain," the value is 15.



Use the arrow keys, or IJKM, to choose the kind of graph you want to make, and press Return or Enter.

Making a Bar Graph, Line Graph, or Pictograph

To make a bar graph, line graph, or pictograph, look for the blinking arrow on the screen. You will type information for your graph next to the arrow. You will first see the arrow at the top of the screen.

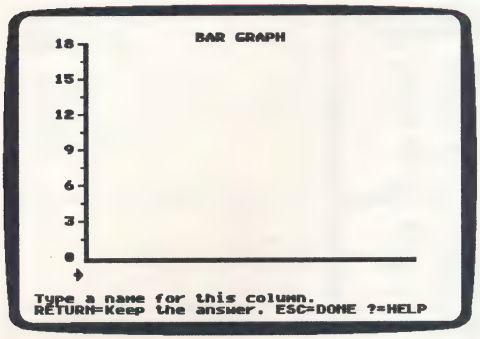


Type a name for your graph, then press Return or Enter. The name may be up to 30 characters long. If you make a mistake typing, use the Delete key or the (←) key to erase.

- To make a bar graph or line graph, type the largest value, or number in your graph, then press Return or Enter. For example, if you make a graph of last month's weather, and there was rain on 15 days, clouds on five days, and sunshine on five days, you know the largest number in your graph is 15.

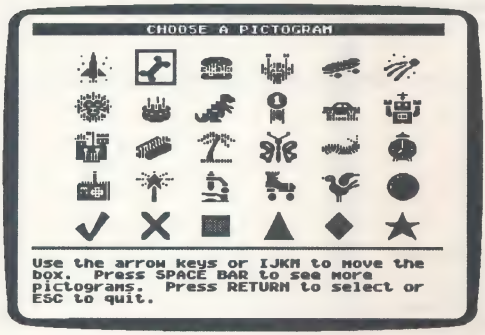
"Let's Graph It!" will automatically fill in the numbers between zero and the largest number in your graph.

NOTE: To make sure there is enough room for the highest point or bar on your graph, "Let's Graph It!" will sometimes add three to the largest number in your graph.

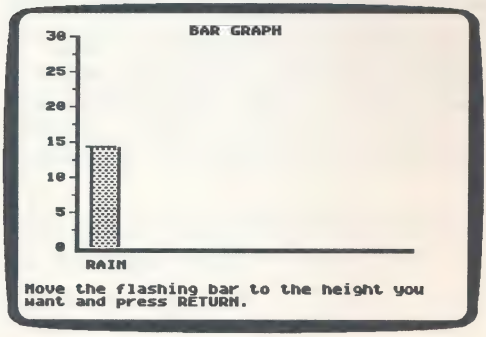


- To make a pictograph, type the value for one pictogram. For example, in a graph of last month's weather, you may want one pictogram to equal five days.
- Type a name for the first column in your graph, then press Return or Enter. The name may be up to seven characters long. If you make a mistake typing, use the Delete key or the (←) key to erase.

If you make a pictograph or a bar graph, "Let's Graph It!" will ask you to select a pictogram or bar to use in that column. You may choose from 60 pictograms and ten bars. Use the arrow keys or IJKM to move the highlight box over the pictogram or bar you want to use, and press Return or Enter.


CHOOSE A PICTOGRAM
Use the arrow keys or IJKM to move the box. Press SPACE BAR to see more pictograms. Press RETURN to select or ESC to quit.

- Move the pictogram, bar, or dot to the height you want, then press Return or Enter. For example, if the column represents the number of rainy days in a month, move the pictogram, bar, or dot up to 15.



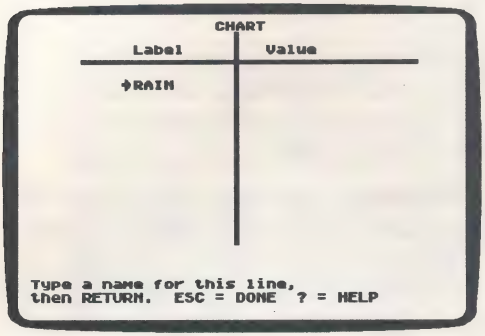
You may make up to eight columns in a bar graph or line graph, and six columns in a pictograph.

When you are done making your graph, press Esc.

Making a Chart

To make a chart, look for the blinking arrow on the screen. You will type information for your chart next to the arrow. You will first see the arrow at the top of the screen.

- Type a name for your chart, then press Return or Enter. It may be up to 30 characters long. If you make a mistake typing, use the Delete key or the (←) key to erase.
- Type a label, then press Return or Enter. For example, if you make a chart of last month's weather, the first label would be "Rain" for rainy days.



- Type a value (number), and press Return or Enter. For example, for the label "Rain," you would type the value "15" because there were 15 rainy days in the month.

You may have up to eight labels and values on your chart.

Press Esc when you are done making your chart.

"What Do You Want To Do Now?" Menu

When you are done making a graph or chart, you will see the "What Do You Want to Do Now?" menu. You may See Your Graph, Edit Your Graph, Print Your Graph, Convert Your Graph, or Make a New Graph.

- Choose See Your Graph to see your finished graph.
- Choose Print Your Graph to print your graph.

NOTE: this option will only appear if you tell "Let's Graph It!" that you have a printer.

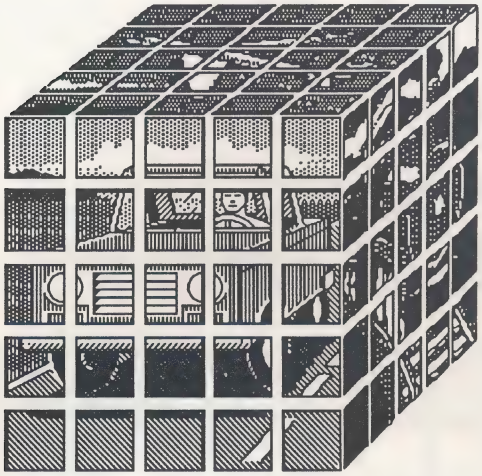
- Choose Edit Your Graph to edit any part of your graph. The blinking arrow will appear at the top of the screen. Make any changes you want, then press Return or Enter to go on. Press Esc when you are done editing your graph.
- Choose Convert Your Graph to convert or change your graph into another type of graph. For example, if you make a chart, you may convert it into a bar graph, line graph, or pictograph. You may convert your graph into as many types of graphs as you want.
- Choose Make a New Graph to make a new graph. "Let's Graph It!" will remind you that making a new graph or chart will erase the graph or chart you have already made.

INSTRUCTIONS

Choose this function to read instructions on how to make graphs and charts with "Let's Graph It!"

GRID BLOCK

A Visual Discrimination Program



What You Will Find

You'll be faced with a grid filled with blocks. Some blocks have pictures on two sides, others have pictures on four. Your job is to turn the blocks around until you fill the grid with just one complete picture.

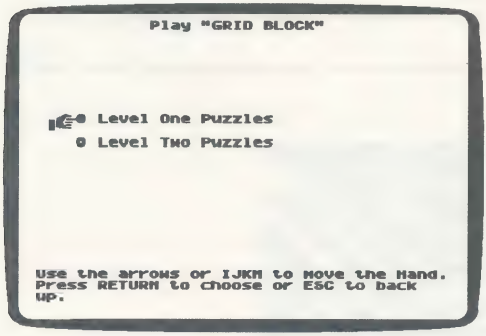
"Grid Block" MAIN MENU

"Grid Block" has two functions, or things you may do. They are PLAY "GRID BLOCK" and INSTRUCTIONS.

PLAY "GRID BLOCK"

Choose this function to solve one of the block puzzles.

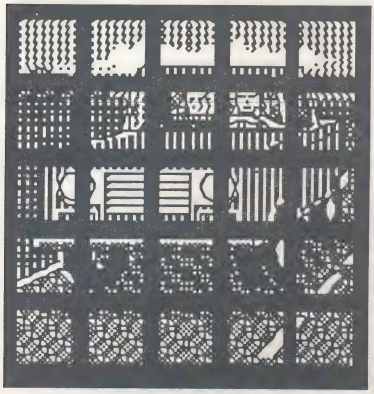
The program will display the Play "Grid Block" menu. You may choose to solve Level One Puzzles or Level Two Puzzles.

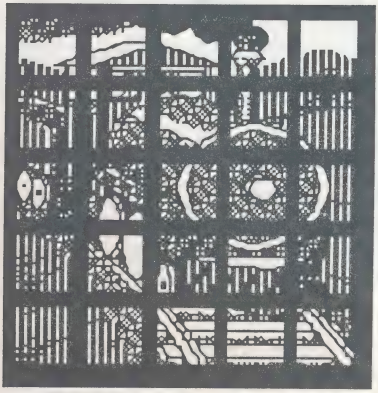

Play "GRID BLOCK"
Level One Puzzles
Level Two Puzzles
Use the arrows or IJKM to move the Hand.
Press RETURN to choose or ESC to back
up.

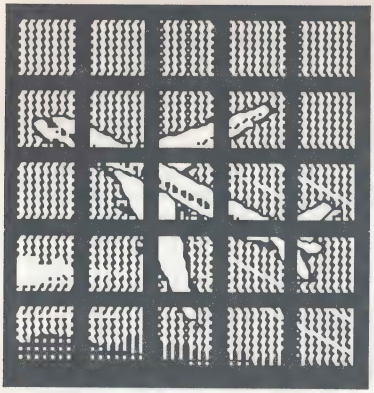
Use the arrow keys, or IJKM, to choose the type of puzzle you want to solve, then press Return or Enter.

Solving Level One Puzzles

The program will display 25 blocks. Each block has four "faces" or sides, but you can only see one face at a time.





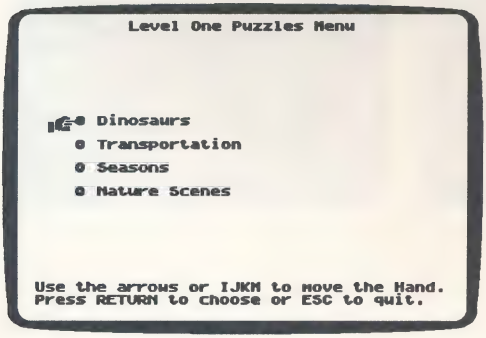


The blocks will be all mixed up so all 25 blocks will not make up one picture.

Use the arrow keys, or IJKM, to move the highlight box to the block you want to "turn," then press Return or Enter.

Now use the (←) or (→) key to turn the block. Continue choosing and turning blocks until all the faces match, forming one complete picture.

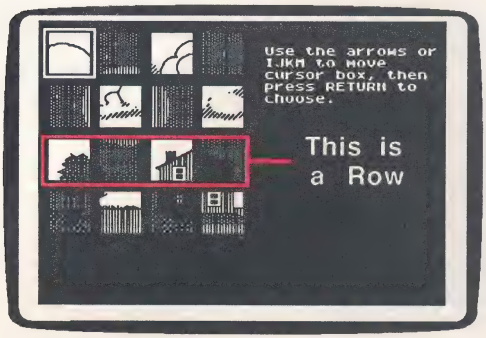
You may choose to solve the following puzzles:



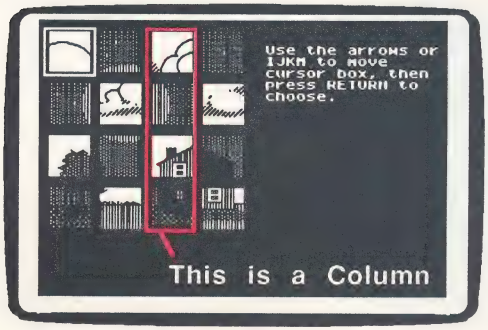
Solving Level Two Puzzles

The program will display 16 blocks. Each block has two "faces" or sides, but you can only see one face at a time. The blocks will be mixed up so all 16 blocks will not make up one picture. The challenge is that you cannot turn one block at a time. You must turn an entire row or column of blocks.

When you count the blocks across (horizontally), it's called a row.

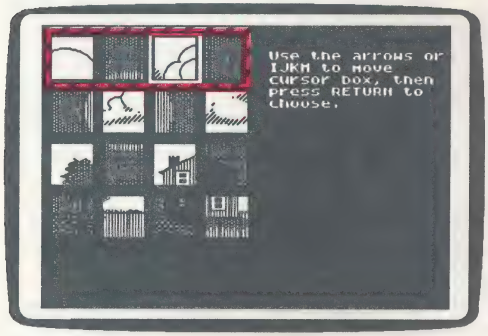


When you count the blocks up and down (vertically), it's called a column.

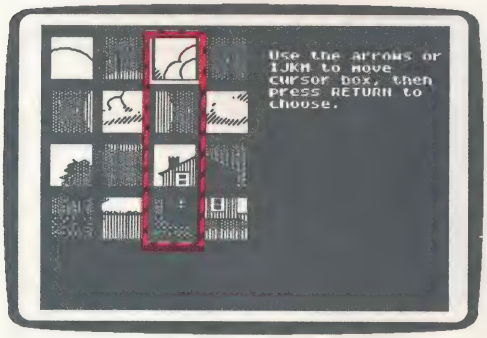


Use the arrow keys or IJKM to move the highlight box to a block in the row or column you want to turn, and press RETURN. Use the left and right arrows or JK to turn all the blocks in that row. Use the up and down arrows or IM to turn all the blocks in that column.

For example, if the highlight box is over the third block in the top row, you may use the left and right arrows or JK to turn all the blocks in the top row.



You may also use the up and down arrows or IM to turn all the blocks in the third column.



Continue choosing and turning rows and columns of blocks until you see one complete picture.

NOTE: While you may use this program with a monochrome or color monitor, "Grid Block" looks best when used with a color monitor.

INSTRUCTIONS

Choose this function to read instructions on how to solve easy and challenging "Grid Block" puzzles.

COMPUTER STUFF

A Utility

What You Will Find

On the "Computer Stuff" MAIN MENU, you will find COPY A PROGRAM and INITIALIZE A DISK.

COPY A PROGRAM

Microzine is committed to offering your students programs that will challenge and reinforce their critical thinking skills. To make these programs accessible to your entire class, Scholastic grants permission for you to make one copy of the Critical Thinking program in this issue for each of your students.

If you have an Apple computer, use any ProDOS copy utility to make a copy of "What's Missing?".

If you have an MS-DOS computer, choose "Copy a Program" from the Computer Stuff MAIN MENU to copy "What's Missing?".

INITIALIZE A DISK

Choose this function to initialize a data disk.

A data disk is a blank disk (or one that you don't mind erasing) that has been initialized or formatted. Initializing a disk gets it ready to save your data for *Microzine*.

If you have an Apple computer, use the Hand to choose "Initialize a Disk" and then press Return.

The program will tell you that you need either a blank disk, or one you don't mind erasing. The program will tell you to insert your blank disk in the drive. The program will tell you that the disk will be erased. It will ask, "Do you want to go ahead?". Use the Hand to point to "YES" or "NO," and then press Return.

The program will initialize the disk. Then the "Computer Stuff" list of functions will appear. You now have a data disk. You may use it for any *Microzine* feature that requires a data disk.

If you have an MS-DOS computer, use any MS-DOS format utility to format or initialize a disk.

NOTE: You will not need a data disk with this issue of Microzine.

Issues 1 through 26 of *Microzine* require a DOS 3.3 data disk. Beginning with issue 27, each issue of *Microzine* that requires a data disk will require a ProDOS data disk for Apple computers or an MS-DOS data disk for MS-DOS computers.

MICROZINE SCOPE & SEQUENCE CHART

	WHAT'S MISSING?	WORLD AGENT	LET'S GRAPH IT!	GRID BLOCK
CRITICAL THINKING SKILLS				
Comparing/Classifying	•		•	•
Sequencing	•			•
Analyzing	•		•	
Inferring		•		
CURRICULUM AREAS				
Reading/Language Arts		•		
Math/Problem Solving	•		•	•
Science			•	
Social Studies		•	•	
INFORMATION PROCESSING SKILLS				
Word Processing/Publishing			•	
Maps/Charts/Graphs		•	•	
Visual Discrimination	•		•	•

WHAT'S MISSING

***Microzine*'s Critical Thinking Feature**

DIFFICULTY LEVEL: **Challenging**, Average, Easy

VOCABULARY PREVIEW: digit, pattern, sequence

SCHOOL ACTIVITIES

CRITICAL THINKING/DISCUSSION: Have students analyze a "typical" event such as a day at school or a baseball game and then break it up into a sequence of smaller events and list them in the order in which they occur. Have students discuss what it would be like to have one or two of these "pieces" missing.

For example, have students analyze a typical day at school and divide it into separate events, such as the bus ride to school, walking to and from classes, and putting away their coats.

After sequencing the events, discuss what it would be like to have one or more of these "pieces" missing from their day, or placed in a different part of the sequence.

MATH/SEQUENCING: Have students choose a number and then see how many different patterns and sequences they can come up with using that number as a puzzle piece. For example, using the number three as a piece, students could make up puzzles of sequenced odd numbers and/or multiples of three. Encourage them to use addition, multiplication, subtraction, and division when making their patterns and sequences.

HOME ACTIVITIES

ART & DESIGN: Have students make picture puzzles of their own. Using construction paper, they should first cut out geometric shapes in multiples of four or five. Suggest that they use crayons, markers and/or glitter to decorate their shapes.

Students can then make a gameboard from poster paper or cardboard, similar to the one in "What's Missing?". They should include on their gameboard a place for the puzzle and a place for the puzzle pieces. Students can make puzzles to challenge their friends at home or at school.

WORLD AGENT

A Twistaplot™ Adventure

DIFFICULTY LEVEL: **Challenging**, Average, Easy

VOCABULARY PREVIEW: antennae, bauxite, colony, equator, hemisphere, lilting, petroleum, prime minister, refinery, souvenir, suffrage

SCHOOL ACTIVITIES

GEOGRAPHY/RESEARCH: Have students use poster paper or construction paper to construct a large map of the Americas. Using a map, globe, or atlas as a guide, have students outline each country on their map with crayons or markers. Have them label each country with its name and capital city.

Divide the class into small groups and assign one country to each group. Ask each group to research their country in an encyclopedia or other reference book and make a list of the country's chief products and natural resources. Students can draw pictures of these products and resources and paste them on their map. Display the completed maps in the classroom.

HOME ACTIVITIES

WRITING: Have students write an essay in which they explain what American or regional item(s) they would be proud to offer to a foreign guest visiting their home. Ask the students to explain why they chose a particular item.

Hints on playing "World Agent"
Version 1: Bring an oil drum from Venezuela to Panama. Bring a music tape from Jamaica to Argentina. George Washington's false teeth are in Brazil. The answers to Pedro's questions are Panama, Sugar Cane, and Jamaica.

Version 2: Bring a mola from Panama to Venezuela. Bring a copper bracelet from Chile to Haiti. George Washington Carver's peanut butter is in Canada. The answers to Justin's questions are Chile, Haiti, and Venezuela.

Version 3: Bring a piñata from Mexico to Canada. Bring sugar cane from Cuba to Peru. Susan B. Anthony's suffrage sash is in Jamaica. The answers to James' questions are Peru, Mexico, and Canada.

Version 4: Bring leather shoes from Argentina to the United States. Bring coffee from Brazil to Mexico. Orville Wright's paper airplane is in Chile. The answers to Luz's questions are Argentina, Brazil, and New York.

LET'S GRAPH IT!

A Graph and Chart Feature

DIFFICULTY LEVEL: Challenging, **Average**, Easy

VOCABULARY PREVIEW: convert, pictogram, value

SCHOOL ACTIVITIES

MATH/SOCIAL STUDIES: Have students work together to design and administer a survey of the opinions or the likes/dislikes of all the students in the class. For example, poll students to learn their favorite foods or music groups. Or find out how many students walk to school or take a bus each day. Tally the results and write them on the blackboard.

Then have students use "Let's Graph It!" to graph the results. Suggest that students first make and print a chart. Then have them convert their chart into another type of graph.

Students may find the chart on page 45 helpful in completing this activity.

MATH/SCIENCE: Have students keep track of the weather every day for a week or a month. Then have students graph the average daily temperature using the Fahrenheit scale. Have them make a second graph of the temperature using the Celsius scale.

HOME ACTIVITIES

MATH: Have students graph how they spend their free time. For example how many hours a day do they do homework, watch T.V., play sports, or talk on the phone? Ask students to make two graphs, one for weekdays, and a second one for weekends.

GRID BLOCK

A Visual Discrimination Feature

DIFFICULTY LEVEL: Challenging, Average, **Easy**

VOCABULARY PREVIEW: face, rotate, block

SCHOOL ACTIVITIES

OBSERVATION/SPATIAL RELATIONS: Collect six cube shaped boxes or blocks and have students cover them with colored paper, making sure no two sides on the same block are the same color. Using a marker or paint, write a number one through six on each side.

Place the cubes on a table so the number one on each cube faces front and is right side up. Assign one student to turn each block. Then have students call out directions—turn right two, up one, etc. Point out to students how the orientation of the numbers changes as the cube is turned. For example, with the number one upright and facing forward, if you turn the cube down once, left once, and then up once, the number one will be facing forward, but it will be on its side.

Once students understand how a cube rotates, mix up all six cubes and challenge students to direct the cube "turners" to make all six cubes have the same number in the same orientation facing forward.

HOME ACTIVITIES

ART & DESIGN: Have students create their own two-dimensional grid blocks. Have students draw a 16-square grid on both sides of a piece of construction or poster paper. Have students draw a picture on both sides of each square and then cut the squares out.

Students can bring in their finished grid blocks and share them with classmates.

DIRECTION DIRECTORY

In many of the Picture Puzzles the pieces look the same, but they face different directions, or are in different orientations. Draw the pictures you see below in different orientations.

UP			
DOWN			
RIGHT			
LEFT			

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DATA KEEPER

Before using "Let's Graph It!" you'll have to gather the information, or data, that you want to display in a graph or chart. Use the grid below to record the data you collect. Then use "Let's Graph It!" to make a bar graph, line graph, pictogram, chart, or all four!

Graph/Chart Title: _____

Column/Label	Value
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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MISSION MESSAGES

As a world agent, you'll be very busy flying all over the Americas. Use the chart below to help you keep track of all the information you uncover while searching for the missing treasure.

Country Visited	Souvenir I Got	Gift Asked For	What I Learned
ARGENTINA			
BRAZIL			
CANADA			
CHILE			
CUBA			
HAITI			
JAMAICA			
MEXICO			
PANAMA			
PERU			
U.S.A.			
VENEZUELA			

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ISBN: 0-590-82694-8